

CROSS REFERENCE TO A RELATED APPLICATION

This application is a continuation-in-part application of patent application serial no. 09/844,745.

BACKGROUND OF THE INVENTION

The present invention relates to traffic lights and traffic control and can be used on roads which have a traffic light for traffic control.

Traffic lights are known and widely utilized. A conventional traffic light is formed as a device in which successively a green signal is turned on, then a yellow signal is turned on, and then a red signal is turned on, to signal to pedestrians and motorists correspondingly than that when the green signal is turned on it is allowed to proceed, when the red signal is turned on it is not allowed to proceed, and when the yellow signal is turned on, next a red signal will follow. U.S. patent no. 4,908,616 discloses a traffic light with four lights, including red, yellow, green and blinking green light elements controlled independently from one another. It is believed that the existing traffic lights can be further improved.

SUMMARY OF THE INVENTION

Accordingly, it is an object of the present invention to provide a traffic light and a method of controlling a traffic light which are further improvement of the existing traffic lights and methods of controlling the same.

In keeping with these objects and with others which will become apparent hereinafter, one feature of the present invention resides, briefly stated, in a traffic light which has three individual elements for exhibiting a green signal, a yellow signal, and a red signal; and means for controlling formed so that the element producing the green signal first generates a permanent (non-blinking) green signal and thereafter the same element generates a green signal which flashes for three-six seconds immediately before the yellow signal is produced, so as to give drivers an additional period of time to decide whether or not to stop when the yellow signal appears.

In accordance with another feature of the present invention a method of controlling a traffic light is proposed, in accordance with which a green signal, yellow signal, a red signal are produced by three different elements; and the signals are controlled so that the element producing the green signal first generates a permanent (non-blinking) green light and

thereafter the same element producing the permanent green light generates a green light which flashes for three-six seconds immediately before it changes to the yellow signal is produced for giving drivers an additional period of time to decide whether or not to stop when the yellow signal appears.

When the light is designed and its control is performed in accordance with the present invention, it constitutes a further improvement of the existing solutions.

BRIEF DESCRIPTION OF THE DRAWINGS

Figure 1 of the drawings is a view showing a traffic light in accordance with the present invention.

DESCRIPTION OF THE PREFERRED EMBODIMENTS

A traffic light in accordance with the present invention includes a conventional signal producing device which is identified in the drawings with reference numeral 1 and can include for example a casing 2 and three light elements formed for example as windows 3, 4 and 5 for exhibiting a green signal, a yellow signal, and a red signal. The construction of such a device is well known and therefore does not require additional explanations. The windows 3, 4, 5 can be provided with colored transparent cover discs with sources of light located behind them, as well known in the art, so that when a corresponding source of light is turned on, light passes through the corresponding colored cover disk and a corresponding color signal appears, such as the green signal, the yellow signal, and the red signal.

The inventive traffic light further has a control unit 6 which controls turning on and off of the light sources located behind the color cover discs 3, 4, and 5. The control unit 6 is also well known in the art, so that its detailed construction does not have to be explained in detail.

In accordance with the present invention the control unit operates so that the traffic light produces a red signal is produced by a red signal producing element (the light and the red colored window), a yellow signal by a yellow signal producing element (the light and the yellow colored

windows) and a green signal is produced by a single green signal producing element (the light and the green colored window). In accordance with the present invention, the control unit controls the green signal producing element so that the green signal producing element first generates a permanent (non-blinking) green signal and thereafter the same element exhibiting the permanent green light generates a green signal which flashes for three-six seconds immediately before the yellow signal is produced, so as to give drivers an additional period of time to decide whether or not to stop when the yellow signal appears the green signal which flashes for three-six seconds before the yellow signal.

In other words, in addition to turning on the light sources located behind the colored cover discs 3, 4, and 5 so that the light sources operate successively, the control unit 6 controls the light source located behind the green cover to operate it so that the green signal producing element first generates a permanent (non-blinking) green signal and thereafter the same element producing the permanent green light generates a green signal which flashes for three-six seconds immediately before the yellow signal is produced, so as to give drivers an additional period of time to decide whether or not to stop when the yellow signal appears.

For producing the permanent, non-blinking green signal, electric current can be supplied to the light source of the green signal

producing element for example directly, while for producing the blinking green signal, electric current can be supplied to the same light source through a pulsating unit.

As a result, an additional period of time is provided for drivers to decide whether to stop or not to stop when the yellow signal will appear. It is believed that this increases the safety of driving. At the same time the same green signal producing element is used for generation of a non-blinking green light and a blinking green light.

It will be understood that each of the elements described above, or two or more together, may also find a useful application in other types of constructions and methods differing from the types described above.

While the invention has been illustrated and described as embodied in a traffic light, it is not intended to be limited to the details shown, since various modifications and structural changes may be made without departing in any way from the spirit of the present invention.

Without further analysis, the foregoing will so fully reveal the gist of the present invention that others can, by applying current knowledge, readily adapt it for various applications without omitting features that, from

the standpoint of prior art, fairly constitute essential characteristics of the generic or specific aspects of this invention.

What is claimed as new and desired to be protected by Letters Patent is set forth in the appended claims.